

XP-002162106

AN - 1992-412328 [50]

A - [001] 014 04- 040 080 139 180 185 186 189 262 273 293 318 324 344 346  
399 431 438 445 477 525 526 532 537 62& 681 689

AP - JP19910100511 19910405

CPY - KURE

DC - A21 A97 D22 J04

FS - CPI

IC - B01J13/18

KS - 0034 0218 0231 1276 1517 1731 1737 2043 2064 2152 2276 2410 2432 2440  
2575 2673 2729 2847

MC - A05-B02 A05-B03 A07-A03D A11-B05C A12-B A12-W05 D03-H01D D03-H02E  
J04-A06

PA - (KURE ) KUREHA CHEM IND CO LTD

PN - JP4310233 A 19921102 DW199250 B01J13/18 005pp

PR - JP19910100511 19910405

XA - C1992-183106

XIC - B01J-013/18

AB - J04310233 Urea-formaldehyde prepolymer or melamine-formaldehyde  
prepolymer and water soluble cationic urea resin are condensation  
polymerised at 40-65 deg.C for 40-80 hours in the presence of anionic  
surfactant and acid catalyst to form microcapsule contg. water  
absorbing swelling part and water non-absorbing part using flavour or  
antimicrobial agent as core material.

- USE/ADVANTAGE - Core material is emitted gradually and efficiently  
using this microcapsule.

- In an example: 100g melamine-formaldehyde prepolymer, 50g  
urea-formaldehyde prepolymer, 20g urea resin and 1g triethanol amine  
are mixed at PH5.2, added to anionic surfactant, mixed with 150g BCM  
as core material, added to water, stirred at 50 deg.C for 60 hours,  
filtered and dried at 40 deg.C to form microcapsule enveloping BCM.  
(Dwg.0/0)

IW - MICROCAPSULE EMIT ABILITY CORE WET OBTAIN CONDENSATION POLYMERISE  
POLYUREA POLYFORMALDEHYDE PREPOLYMER MELAMINE FORMALDEHYDE PREPOLYMER  
WATER SOLUBLE CATION UREA RESIN

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NC - 001

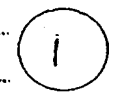
OPD - 1991-04-05

ORD - 1992-11-02

PAW - (KURE ) KUREHA CHEM IND CO LTD

TI - Microcapsule with emitting ability of core when wet - obtd. by  
condensation polymerisation of urea]-formaldehyde] prepolymer or  
melamine-formaldehyde prepolymer and water soluble cations urea resin  
etc.

XP-002162108

P.D. 1443  
P. 1 page

1/1 - (C) FILE CA  
 AN - 118:87418 CA  
 TI - Microencapsulation of water-insoluble ingredients  
 IN - Igarashi, Yuriko; Naoki, Jun  
 PA - Kureha Chemical Industry Co., Ltd., Japan  
 SO - Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT - Patent  
 LA - Japanese  
 IC - ICM B01J013/18  
 CC - 62-5 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 5  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PN	JP4310233	A	19921102	JP 1991-100511	19910405 <--
AB	<p>Urea-formaldehyde prepolymer and/or melamine-formaldehyde prepolymer are treated with water-sol. cationic urea resin in the presence of an anionic surfactant and an acid catalyst at 40-65.degree. for 40-80h to form a membrane, which encapsulates water-insol. ingredients, such as perfumes and microbicides. The membrane consists of a water-swallowable part and a water-nonabsorbing part, therefore when the microcapsule is wet, it releases the core ingredient. Thus, M 4.5F prepolymer soln. (methylolmelamine resin obtained by reacting melamine 1 mol with formaldehyde 4.5 mol) and U 1.8F prepolymer soln. (methylolurea resin obtained by reacting urea 1 mol with formaldehyde 1.8 mol) were reacted with Eulamin P-1500 (cationic urea resin) in an aq. soln. contg. triethanolamine and Na alkylbenzenesulfonate. To the reaction mixt. cedar oil was added for microencapsulation. The product was placed under various humidity conditions and the release of odor was tested.</p>				
ST	microcapsule perfume urea melamine resin; fungicide				
IT	Fungicides and Fungistats				
	Perfumes				
	Olive oil				
	RL: PROC (Process)				
	(microencapsulation of, with aminoplasts for controlled release)				
IT	Essential oils				
	RL: PROC (Process)				
	(cedar, microencapsulation of, with aminoplasts for controlled release)				
IT	Encapsulation				
	(micro-, of perfumes and microbicides, with aminoplasts for controlled release)				
IT	2216-51-5, 1-Menthol		10605-21-7		
	RL: PROC (Process)				
	(microencapsulation of, with aminoplasts for controlled release)				
IT	9003-08-1, Formaldehyde-melamine copolymer		9011-05-6,		
	Urea-formaldehyde copolymer				
	RL: BIOL (Biological study)				
	(perfumes and fungicides microencapsulation with, for controlled-release)				

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 04310233  
PUBLICATION DATE : 02-11-92

APPLICATION DATE : 05-04-91  
APPLICATION NUMBER : 03100511

APPLICANT : KUREHA CHEM IND CO LTD;

INVENTOR : NAOKI JUN;

INT.CL. : B01J 13/18

TITLE : MICRO-CAPSULE CAPABLE OF RELEASING CORE MATERIAL WHEN IT IS WET

ABSTRACT : PURPOSE: To provide a long serviceable micro-capsule by forming a film wall comprising a hygroscopic and swelling moiety and a nonhygroscopic moiety to release a core material only in a highly humid environment but not to release it in a dry state, and regulating the release artificially.

CONSTITUTION: A micro-capsule comprising a film wall formed by polycondensing at least one member selected from a urea-formaldehyde and a melamine-formaldehyde prepolymer, a water-soluble cationic urea resin and an anionic surfactant in the presence of an acid catalyst at 40 to 65°C for 40 to 80 hours. Slightly water-soluble components such as perfume and antibacterial agent are contained therein as a core material.

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